

STATE OF ALASKA

**DEPARTMENT OF
ENVIRONMENTAL CONSERVATION**



18 AAC 75

**OIL AND OTHER HAZARDOUS SUBSTANCES
POLLUTION CONTROL**

**Version Filed with Lt Governor
Only Contains Sections that have changed
Effective date January 30, 2003**

The lead-in to 18 AAC 75.300(a) is amended to read:

18 AAC 75.300. Discharge or release notification; reporting requirements. (a)

Subject to (b), (c), and (g) of this section, a person in charge of a facility or operation shall notify the department by telephone, and immediately afterwards send the department a written notice by facsimile, hand delivery, or first class mail, informing the department about a discharge or release of a hazardous substance at or from the facility or operation as follows:

* * * * *

18 AAC 75.300 is amended by adding a new subsection to read:

- (g) Reporting under this section is not required for a discharge or release
- (1) that is authorized by a valid permit issued by the department; or
 - (2) that is excluded from the definition of "release" under AS 46.03.826(9). (Eff.

1/22/99, Register 149; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.745	AS 46.04.070
	AS 46.03.050	AS 46.03.755	AS 46.09.010
	AS 46.03.710	AS 46.04.020	AS 46.09.020
	AS 46.03.740		

18 AAC 75.310(a) is amended to read:

18 AAC 75.310. Scope and duration of initial response actions. (a) Immediately
after [AFTER] receiving notice from a person [IN CHARGE] or after otherwise becoming aware of a discharge or release of a hazardous substance to land or waters of the state, a responsible person shall, as required by 18 AAC 75.315 [AND USING METHODS APPROVED FOR THAT SITE], immediately contain and control [PERFORM A CLEANUP

OF] the discharge or release[,] and seek approval of cleanup and disposal plans to be used for that release. After [, AFTER] obtaining [SUCH] approval of cleanup and disposal plans, the responsible person shall perform a cleanup of the discharge or release and dispose of the contaminated material in accordance with those plans[, SHALL TREAT OR DISPOSE OF THE CONTAMINATED EQUIPMENT, MATERIALS, SOIL, AND WATER COLLECTED USING METHODS APPROVED FOR THAT SITE. THE DEPARTMENT WILL APPROVE A METHOD IF THE DEPARTMENT DETERMINES THAT THE METHOD DOES NOT THREATEN HUMAN HEALTH, SAFETY, OR WELFARE, OR THE ENVIRONMENT].

(Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.740	AS 46.04.070
	AS 46.03.050	AS 46.03.745	AS 46.09.020
	AS 46.03.710	AS 46.04.020	

18 AAC 75.325(g) and (h) are amended to read:

(g) If using method two or method three for determining the applicable soil cleanup levels as described in 18 AAC 75.340 - 18 AAC 75.341, or if applying the groundwater cleanup levels at Table C in 18 AAC 75.345, a responsible person shall ensure that, after completing site cleanup, the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and a cumulative noncarcinogenic risk standard at a hazard index of 1.0 across all exposure pathways. Guidance on cumulative risk determinations is provided in [APPENDIX D OF] the department's Cumulative Risk Guidance [GUIDANCE ON CLEANUP LEVELS EQUATIONS AND INPUT PARAMETERS], dated **November 7, 2002** [JULY 28, 1999]. The department's Cumulative Risk Guidance [GUIDANCE ON CLEANUP LEVELS EQUATIONS AND INPUT PARAMETERS], dated **November 7, 2002** [JULY 28, 1999], is adopted by reference.

(h) If proposing an alternative cleanup level for soil or groundwater, based on a site-specific risk assessment under method four in 18 AAC 75.340(f) or under the provisions of 18 AAC 75.345(b)(3), a responsible person shall ensure that the risk from hazardous substances does not exceed the cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and the cumulative noncarcinogenic risk standard at a hazard index of 1.0 across all exposure pathways. Guidance on cumulative risk determinations is provided in [APPENDIX D OF] the department's **Cumulative Risk Guidance** [*GUIDANCE ON CLEANUP LEVELS EQUATIONS AND INPUT PARAMETERS*], adopted by reference in (g) of this section. Instead of the risk standards required by this subsection, the department **may** [IN ITS DISCRETION,] consider a risk standard consistent with the range acceptable under 40 C.F.R. 300.430, revised as of **July 1, 2002** [JULY 1, 1996], adopted by reference, based on

* * * * (Publisher, rest of (h) is unchanged)

(Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.740	AS 46.04.020
	AS 46.03.050	AS 46.03.745	AS 46.04.070
	AS 46.03.710	AS 46.03.822	AS 46.09.020

18 AAC 75.340(c) is amended to read:

(c) For methods two, three, and four, a responsible person shall demonstrate that the Arctic zone **soil** cleanup level, if applicable, is protective of migration to surface water.

18 AAC 75.340(e)(1) and (3) are amended to read:

(1) the migration to groundwater or inhalation levels in Table B1 of 18 AAC 75.341(c) or Table B2 of 18 AAC 75.341(d), based on the use of approved site-specific soil data, and the equations set out in the department's **Cleanup Levels Guidance, dated**

November 7, 2002 [*GUIDANCE ON CLEANUP STANDARDS EQUATIONS AND INPUT PARAMETERS*], adopted by reference [IN 18 AAC 75.325]; the alternative cleanup level that then applies at the site for a hazardous substance is the most stringent of the Table B1 or Table B2 ingestion-based level and the site-specific calculated levels for inhalation or migration to groundwater;

* * * * *

(3) the ingestion level or the inhalation level in Table B1 or Table B2 based on use of commercial or [/] industrial exposure parameters listed in Appendix B of the Cleanup Levels Guidance [*GUIDANCE ON CLEANUP STANDARDS EQUATIONS AND INPUT PARAMETERS*], adopted by reference in (1) of this subsection [18 AAC 75.325], if the department determines that the site serves a commercial or industrial land use, and if the alternative ingestion level or inhalation level does not exceed the migration to groundwater cleanup level in Table B1 or Table B2 or a site-specific migration to groundwater level calculated under (2) of this subsection; the department will base a land use determination under this paragraph upon

* * * * * (*Publisher, rest of (e)(3) is unchanged*)

18 AAC 75.340(h)(1) and (2) are amended to read:

(1) background concentrations of a hazardous substance in the site area[, AS DETERMINED BY THE DEPARTMENT'S *TECHNICAL GUIDANCE DOCUMENT ON DETERMINATION OF BACKGROUND CONCENTRATIONS*, DATED SEPTEMBER 17, 1998 AND ADOPTED BY REFERENCE,] exceed the applicable cleanup level set out in 18 AAC 75.341 for the hazardous substance; or

(2) the practical quantitation limit for the hazardous substance exceeds the

applicable cleanup level set out in 18 AAC 75.341 for that substance.

18 AAC 75.340(k) is amended to read:

(k) For a cleanup conducted under methods two and three, a chemical that is detected at one-tenth or more of the Table B1 ingestion and inhalation cleanup levels [VALUE] set out in 18 AAC 75.341(c) [OR THE TABLE B2 VALUE SET OUT IN 18 AAC 75.341(d)] must be included when calculating cumulative risk under 18 AAC 75.325(g) [18 AAC 75.325(3)].

(Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.740	AS 46.04.070
	AS 46.03.050	AS 46.03.745	AS 46.09.020
	AS 46.03.710	AS 46.04.020	

Table B1, and the Notes to Table B1 and B2 in 18 AAC 75.341(c) are amended to read:

[Publisher: in the following table:

- 1. do not bold the parenthetical portion of the table title at the top of each new page of the table (i.e., the portion reading "(See notes to table for additional requirements)";*
- 2. for each new page of the table that sets out "ORGANICS" chemical names (i.e., "Acenaphthene" through "Xylenes (total)"), show the word "ORGANICS"—all caps—immediately below the block for "Chemical Name" and above the first chemical listed on that page;*
- 3. after the entry for "Xylenes (total)" and before beginning the listing of "INORGANICS" (all capped), insert two blank lines so that the transition from "ORGANICS" to "INORGANICS" is apparent;*
- 4. if the list of "INORGANICS" (i.e., "Antimony" through "Zinc" is split between two pages, show the word "INORGANICS" immediately below the block for "Chemical name" at the top of the new table page.]*

TABLE B1. METHOD TWO – SOIL CLEANUP LEVELS (See notes to table for additional requirements)

		Arctic Zone ¹			Under 40 inch Zone ²			Over 40 inch Zone ³		
CAS NUMBER ⁴	CHEMICAL NAME (Carcinogenics in Bold Type)	Ingestion ⁵ (mg/kg)	Inhalation ⁶ (mg/kg)	Migration to Ground- water ⁷ (N/A)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwa- ter (mg/kg)
	ORGANICS									
83-32-9	Acenaphthene ¹⁵	8200			6100		210	5000		190
67-64-1	Acetone (2-Propanone)	1400 [14000]			10000		10	8300		9
309-00-2	Aldrin	0.7	35		0.5	24	1.6	0.40	18	1.5
120-12-7	Anthracene ¹⁵	41000			30000		4300	24900		3900
71-43-2	Benzene ¹⁵	200 [390]	13		150 [290]	9	0.02	120 [230]	6.4	0.02
56-55-3	Benzo(a)anthracene ¹⁵	15			11		6	9		5.5
205-99-2	Benzo(b)fluoranthene ¹⁵	15			11		20	9		17
207-08-9	Benzo(k)fluoranthene ¹⁵	150			110		200	93		170
65-85-0	Benzoic acid	547500			410000		390	332000		350
50-32-8	Benzo(a)pyrene ¹⁵	1.5			1		3	0.9		2.4
111-44-4	Bis(2-chlorethyl)ether	10	5		8	3	0.002	6	2.4	0.002
117-81-7	Bis(2-ethylhexyl)phthalate	800			590		1200	490		1100
75-27-4	Bromodichloromethane	180			130		0.35	110		0.3
75-25-2	Bromoform (Tribromomethane)	1400	590 ¹²		1050	500	0.38	860	370	0.34
71-36-3	Butanol	14000			10000		10	8300		9
85-68-7	Butyl benzyl phthalate	27000			20000		5600	16600		5000
86-74-8	Carbazole	560			420		2	340		2
75-15-0	Carbon disulfide	14000	453 ¹²		10000	453 ¹²	17	8300	453 ¹²	16
56-23-5	Carbon tetrachloride	86	5		64	3.4	0.03	52	2.6	0.03
57-74-9	Chlordane	32 [9]	750 [200]		24 [6]	510 [140]	3	19 [5]	380 [100]	3
106-47-8	p-Chloroaniline	550			410		0.5	330		0.46
108-90-7	Chlorobenzene	2700	160		2000	110	0.6	1700	81	0.5
124-48-1	Chlorodibromomethane	130			100		0.2	80		0.2

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		Arctic Zone ¹			Under 40 inch Zone ²			Over 40 inch Zone ³		
CAS NUMBER ⁴	CHEMICAL NAME (Carcinogenics in Bold Type)	Ingestion ⁵ (mg/kg)	Inhalation ⁶ (mg/kg)	Migration to Ground- water ⁷ (N/A)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwa- ter (mg/kg)
67-66-3	Chloroform	1400	5		1000	3.4	0.34	830	2.4	0.3
95-57-8	2-Chlorophenol	680			510		1.4	415		1.3
218-01-9	Chrysene ¹⁵	1500			1100		620	930		550
72-54-8	DDD	47			35		47	28		42
72-55-9	DDE	33			24		150	20		130
50-29-3	DDT	33	7800		24	5300	88	20	3900	80
53-70-3	Dibenzo(a,h)anthracene ¹⁵	1.5			1		6	0.9		5
84-74-2	Di-n-butyl phthalate	1400 [14000]			10000		1700	8300		1500
117-84-0	Di-n-octyl phthalate	2700			2000		810000	1700		720000
95-50-1	1,2-Dichlorobenzene	12000	110 ¹²		9100	110 ¹²	7	7500	110 ¹²	6
106-46-7	1,4-Dichlorobenzene	470	12000		350	8000	0.8	280	6000	0.7
91-94-1	3,3-Dichlorobenzidine	25			18		0.02	15		0.02
75-34-3	1,1-Dichloroethane	14000	890 ¹²		10000	890 ¹²	12	8300	890 ¹²	11
107-06-2	1,2-Dichloroethane	120	7		91	5	0.015	75	3.5	0.01
75-35-4	1,1-Dichloroethylene	19	1.3		14	0.9	0.03	11	0.65	0.03
156-59-2	cis-1,2-Dichloroethylene	1400			1000		0.2	830		0.2
156-60-5	trans-1,2-Dichloroethylene	2700			2000		0.4	1700		0.34
120-83-2	2,4-Dichlorophenol	410			300		0.45	250		0.45
78-87-5	1,2-Dichloropropane	160	25		120	17	0.017	100	12	0.015
542-75-6	1,3-Dichloropropene	110 [41]	21 [2.3]		83 [30]	14 [1.5]	0.02	68 [25]	11 [1]	0.02
60-57-1	Dieldrin	0.7	12		0.5	8	0.015	0.4	6	0.014
[131-11-3]	[DIMETHYL PHTHALATE]	[> 10 ⁶]			[> 10 ⁶]		[1400]	[830000]		[1200]
84-66-2	Diethyl phthalate	110000			81000		190	66000		170
105-67-9	2,4-Dimethylphenol	2700			2000		4	1700		3.6
51-28-5	2,4-Dinitrophenol	270			200		0.2	170		0.17

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CAS NUMBER ⁴	CHEMICAL NAME (Carcinogenics in Bold Type)	Ingestion ⁵ (mg/kg)	Inhalation ⁶ (mg/kg)	Migration to Ground- water ⁷ (N/A)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwa- ter (mg/kg)
131-11-3	Dimethyl phthalate	> 10 ⁶			> 10 ⁶		1400	830000		1200
121-14-2	2,4-Dinitrotoluene	17			12		0.005	10		0.0044
606-20-2	2,6-Dinitrotoluene	17			12		0.0044	10		0.004
174-60-16	Dioxin ⁸									
115-29-7	Endosulfan	820			610		7	500		6
72-20-8	Endrin	41			30		0.3	25		0.3
100-41-4	Ethylbenzene ¹⁵	13700	89 ¹²		10000	89 ¹²	5.5	8300	89 ¹²	5
206-44-0	Fluoranthene	5500			4100		2100	3300		1900
86-73-7	Fluorene ¹⁵	5500			4100		270	3300		240
76-44-8	Heptachlor	2.5	1.2		2	0.8	8	1.5	0.6	7
1024-57-3	Heptachlor epoxide	1	50		0.9	33	0.2	0.75	25	0.2
118-74-1	Hexachlorobenzene	7	10		5	7	0.73	4	5	0.7
87-68-3	Hexachloro-1,3-butadiene	27	82		20	55	8	17	41	7
319-84-6	alpha-Hexachlorocyclohexane	2	8		1.3	5.5	0.0026	1	4	0.002
319-85-7	beta-Hexachlorocyclohexane	6	65		4.6	43	0.009	4	32	0.008
58-89-9	gamma-Hexachlorocyclohex- ane (Lindane)	9			6.4		0.003	5		0.003
77-47-4	Hexachlorocyclopentadiene	960	11		710	7	130	580	5	120
67-72-1	Hexachloroethane	139	580		101	390	1.6	83	290	1.4
193-39-5	Indeno(1,2,3-c,d)pyrene ¹⁵	15			11		54	9		50
78-59-1	Isophorone	11800			8700		3	7200		2.6
72-43-5	Methoxychlor	680			510		52	420		47
74-83-9	Methyl bromide	190	21		140	14	0.16	120	11	0.14
75-09-2	Methylene chloride	1500	270		1100	180	0.015	900	135	0.01
95-48-7	2-Methylphenol (o-cresol)	6800			5100		7	4200		6

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91-20-3	Naphthalene ¹⁵	2700 [5500]	180		2000 [4100]	120	21 [43]	1700 [3300]	92	19 [38]
98-95-3	Nitrobenzene	68	130		51	90	0.06	42	67	0.06
86-30-6	n-Nitrosodiphenylamine	2300			1700		3.4	1400		3
621-64-7	n-Nitrosodi-n-propylamine	1.6			1.2		0.00036	1.0		0.0003
87-86-5	Pentachlorophenol	46.7 ¹³			35 ¹³		0.01	28 ¹³		0.009
108-95-2	Phenol	82000			60800		67	50000		60
133-63-63	Polychlorinated Biphenyls (PCBs) ⁹	1 [10]	1 [10]		1 [10]	1 [10]	[10]	1 [10]	1 [10]	[10]
129-00-0	Pyrene ¹⁵	4100			3000		1500	2500		1400
100-42-5	Styrene	27400	280 ¹²		20300	280 ¹²	1.3	17000	280 ¹²	1.2
79-34-5	1,1,2,2-Tetrachloroethane	56	8		42	5.4	0.017	34	4	0.01
127-18-4	Tetrachloroethylene	220	80 ¹²		160	80 ¹²	0.03	130	79	0.025
108-88-3	Toluene ¹⁵	27400	180 ¹²		20300	180 ¹²	5.4	17000	180 ¹²	4.8
8001-35-2	Toxaphene	10	920		8	620	10	6	460	9
120-82-1	1,2,4-Trichlorobenzene	1400	570 ¹²		1000	570 ¹²	2	830	570 ¹²	1.7
71-55-6	1,1,1-Trichloroethane		460 ¹²			460 ¹²	1.0		460 ¹²	0.9
79-00-5	1,1,2-Trichloroethane	200	15		150	10	0.017	120	8	0.015
79-01-6	Trichloroethylene	1000	64		750	43	0.027	620	32	0.02
95-95-4	2,4,5-Trichlorophenol	13700			10000		90	8300		78
88-06-2	2,4,6-Trichlorophenol	1000	2300		750	1500	0.6	620	1100	0.5
108-05-4	Vinyl acetate	137900	2200 ¹²		101000	1500	100	83000	1100	90
75-01-4	Vinyl chloride (Chloroethene)	7 [6]	6 [0.7]		6 [4]	4 [0.5]	0.009	5 [4]	3 [0.3]	0.008
1330-20-7	Xylenes (total) ¹⁵	274000	81 ¹²		203000	81 ¹²	78	166000	81 ¹²	69
	INORGANICS									
7440-36-0	Antimony	55			41		3.6	33		3

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		Arctic Zone ¹			Under 40 inch Zone ²			Over 40 inch Zone ³		
CAS NUMBER ⁴	CHEMICAL NAME (Carcinogenics in Bold Type)	Ingestion ⁵ (mg/kg)	Inhalation ⁶ (mg/kg)	Migration to Ground- water ⁷ (N/A)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwa- ter (mg/kg)
7440-38-2	Arsenic	8			5.5		2	4.5		1.8
7440-39-3	Barium	9600			7100		1100	5800		982
7440-41-7	Beryllium	270 [2.6]			200 [1.9]		42	170 [1.6]		38
7440-43-9	Cadmium	140			100		5	83		4.5
7440-47-3	Chromium (Total)	410 [680]			300 [510]		26	250 [420]		23
16065-83-1	Chromium +3	200000 [137000]			150000 [100000]		>10 ⁶	120000 [83000]		>10 ⁶
18540-29-9	Chromium +6	410 [680]			300 [510]		26	250 [420]		23
57-12-5	Cyanide ¹⁰	2700			2000		27	1700		24
7439-92-1	Lead ¹¹	400	400		400	400		400	400	
7439-97-6	Mercury		26			18	1.4		13	1.24
7440-02-0	Nickel	2700			2000		87	1700		78
7782-49-2	Selenium	680			510		3.5	420		3
7440-22-4	Silver	680			510		21	420		19
7440-62-2	Vanadium	960			710		3400	580		3050
7440-66-6	Zinc	41000			30000		9100	25000		8100

NOTES TO TABLE B1 FOLLOW TABLE B2 IN (d) OF THIS SECTION

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Notes to Tables B1 and B2:

For PCB-free mineral oils, the department will approve alternate levels or exposure pathways, if the department determines that the alternative levels or exposure pathways are protective of human health, safety, and welfare, and of the environment. Although migration to groundwater is not applicable to the Arctic zone, site-specific levels must be protective of migration to surface water. Concentrations of hazardous substances in soil must be calculated and presented on a per dry weight basis. For volatile organic hazardous substances for which toxicity data is not currently available, the cleanup level that applies at a site is the calculated saturation concentration determined using the equations [EQUATION] set out in Cleanup Levels Guidance [GUIDANCE ON CLEANUP STANDARDS EQUATIONS AND INPUT PARAMETERS], adopted by reference in 18 AAC 75.340 [18 AAC 75.325]. The cleanup level from Table B1 or B2 that applies at a site is the most stringent of the applicable exposure pathway-specific cleanup levels based on ingestion, inhalation, or migration to groundwater. In Table B1, a blank space means not available or not applicable.

* * * * * [Publisher: notes not shown are unchanged]

9. For unrestricted land use, PCBs in soil shall be cleaned up to one mg/kg or less, unless the department determines that a different cleanup level is necessary as provided in 18 AAC 75.340(i), as, for example, in a subsistence food gathering area. With the prior approval of the department, PCBs in soil may be cleaned up to

(A) between 1 and 10 mg/kg if the responsible person

(i) caps each area containing PCBs in soil at levels between 1 and 10 mg/kg; for purposes of this Note 9, “caps” means covering an area of PCB contaminated soil with an appropriate material to prevent exposure of humans and

the environment to PCBs; to be approved, a cap must be designed and constructed of a material acceptable to the department and of sufficient strength and durability to withstand the use of the surface that is exposed to the environment; within 72 hours after discovery of a breach to the integrity of a cap, the responsible person or the landowner shall initiate repairs to that breach; and

(ii) provides the department within 60 days after completing the cleanup, documentation that the responsible person has recorded a deed notation in the appropriate land records, or on another instrument that is normally examined during a title search, documenting that PCBs remain in the soil, that the contaminated soil has been capped, and that subsequent interest holders may have legal obligations with respect to the cap and the contaminated soil; or

(B) [FOR RESIDENTIAL LAND USE, THE CLEANUP LEVEL FOR PCBS IN SURFACE SOIL IS 1 MG/KG; FOR COMMERCIAL OR INDUSTRIAL LAND USE, THE CLEANUP LEVEL FOR PCBS IN SURFACE SOILS IS 10 MG/KG AND FOR PCBS IN SUBSURFACE SOIL IS 25 MG/KG; A RESPONSIBLE PERSON MAY PROPOSE] an alternative **PCB soil** cleanup level **developed** through an approved site-specific risk assessment, conducted according to the *Risk Assessment Procedures Manual*, adopted by reference at 18 AAC 75.340.

* * * * *

11. Lead cleanup levels must be determined on a site-specific basis, based on land use. **For** [; FOR] residential land use, the soil cleanup level is 400 mg/kg. **For** [, AND FOR] commercial or industrial land use, **as applied in 18 AAC 75.340(e)(3), the soil cleanup** [THAT] level is 1,000 mg/kg. **Through**[; THROUGH] an approved site-specific risk assessment, conducted according to the *Risk Assessment Procedures Manual*, adopted by reference at

18 AAC 75.340, approved exposure models may be used to evaluate exposure to a child resident or an adult worker. A[; A] responsible person may also propose an alternative cleanup level, through a site-specific risk assessment conducted according to the *Manual*, and based on a chemical speciation of the lead present at the site. **For soils contaminated with lead more than 15 feet below ground surface, lead cleanup levels will be determined on a site-specific basis.**

12. These levels are based on soil saturation level (Csat) using the equations set out in **Cleanup Levels Guidance** [*GUIDANCE ON CLEANUP STANDARDS EQUATIONS AND INPUT PARAMETERS*], adopted by reference in **18 AAC 74.340** [18 AAC 75.325].

* * * * *

15. If using method two or method three, the applicable petroleum hydrocarbon cleanup levels must be met in addition to the applicable chemical-specific cleanup levels for benzene, **ethylbenzene**, toluene, [ETHYLBENZENE,] and total xylenes; the chemical-specific cleanup levels for the polynuclear aromatic hydrocarbons acenaphthene, anthracene, benzo(a)anthracene, **benzo(a)pyrene**, benzo(b)fluoranthene, benzo(k)fluoranthene, [BENZO(A)PYRENE,] chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, **naphthalene** [MAPHTHALENE], and pyrene must also be met unless the department determines that those cleanup levels need not be met to protect human health, safety, and welfare, and the environment. (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.740	AS 46.04.070
	AS 46.03.050	AS 46.03.745	AS 46.09.020
	AS 46.03.710	AS 46.04.020	

Editor's note: The applicable EPA rule governing disposal and cleanup of PCB contaminated facilities under 40 C.F.R. Part 761.61 (PCB remediation waste) may apply to PCB cleanup at a contaminated site. The PCB cleanup levels listed in Table B1 are based on cleanup levels referred to in 40 C.F.R. 761.61 for high occupancy areas with no cap.

[EDITOR'S NOTE: THIS SECTION IS SET OUT TO CORRECT A MANIFEST

TYPOGRAPHICAL ERROR IN THE ROW FOR "XYLENES (TOTAL)" UNDER THE COLUMN FOR ARCTIC ZONE INGESTION IN TABLE B1.]

Table C in 18 AAC 75.345(b) is amended to read:

TABLE C. GROUNDWATER CLEANUP LEVELS (Carcinogenics in Bold Type)		
Hazardous Substance	CAS Registry Number	Groundwater Cleanup Level (mg/L)
Acenaphthene	83-32-9	2.2
Acetone	67-64-1	3.65
Aldrin	309-00-2	0.00005
Anthracene	120-12-7	11.0
Antimony	7440-36-0	0.006
Arsenic	7440-38-2	0.05
Barium	7440-39-3	2.0
Benzene	71-43-2	0.005
Benzo(a)anthracene	56-55-3	0.001
Benzo(b)fluoranthene	205-99-2	0.001
Benzo(k)fluoranthene	207-08-9	0.01
Benzoic acid	65-85-0	146.0
Benzo(a)pyrene	50-32-8	0.0002
Beryllium	<u>7440-41-17</u> [7440-4-17]	0.004
Bis(2-chloroethyl)ether	111-44-4	0.00077
Bis(2-ethylhexyl)phthalate	117-81-7	0.006
Bromodichloromethane	75-27-4	0.1
Bromoform (Tribromomethane)	75-25-2	0.1
Butanol	71-36-3	3.65
Butyl benzyl phthalate	85-68-7	7.3
Cadmium	7440-04-39	0.005
Carbazole	86-74-8	0.04
Carbon disulfide	75-15-0	3.65
Carbon tetrachloride	56-23-5	0.005
Chlordane	57-74-9	0.002
p-Chloroaniline	106-47-8	0.15
Chlorobenzene	108-90-7	0.1
Chlorodibromomethane	124-48-1	0.06
Chloroform	67-66-3	0.1
2-Chlorophenol	95-57-8	0.2
Chromium (Total)	7440-47-3	0.1
Chromium +3	16065-83-1	<u>55</u> [36.5]
Chromium +6	18540-29-9	0.1
Chrysene	218-01-9	0.1
Copper	7440-05-08	1.3
Cyanide	57-12-5	0.2
DDD	72-54-8	0.0036
DDE	72-55-9	0.0025

TABLE C. GROUNDWATER CLEANUP LEVELS
(Carcinogenics in Bold Type)

Hazardous Substance	CAS Registry Number	Groundwater Cleanup Level (mg/L)
DDT	50-29-3	0.0025
Dibenzo(a,h)anthracene	53-70-3	0.0001
Di-n-butyl phthalate	84-74-2	3.65 [3.5]
1,2-Dichlorobenzene	95-50-1	0.6
1,4-Dichlorobenzene	106-46-7	0.075
3,3-Dichlorobenzidine	91-94-1	0.002
1,1-Dichloroethane	75-34-3	3.65
1,2-Dichloroethane	107-06-2	0.005
1,1-Dichloroethylene	75-35-4	0.007
cis-1,2-Dichloroethylene	156-59-2	0.07
trans-1,2-Dichloroethylene	156-60-5	0.1
2,4-Dichlorophenol	120-83-2	0.1
1,2-Dichloropropane	78-87-5	0.005
1,3-Dichloropropene	542-75-6	0.009 [0.005]
Dieldrin	60-57-1	0.00005
Diethyl phthalate	84-66-2	29.0
2,4-Dimethylphenol	105-67-9	0.7
2,4-Dinitrophenol	51-28-5	0.07
2,4-Dinitrotoluene	121-14-2	0.00125
2,6-Dinitrotoluene	606-20-2	0.00125
Di-n-octyl phthalate	117-84-0	0.7
Dioxin	174-60-16	0.00000003
Endosulfan	115-29-7	0.2
Endrin	72-20-8	0.002
Ethylbenzene	100-41-4	0.7
Fluoranthene	206-44-0	1.46
Fluorene	86-73-7	1.46
Heptachlor	76-44-8	0.0004
Heptachlor epoxide	1024-57-3	0.0002
Hexachlorobenzene	118-74-1	0.001
Hexachloro-1,3-butadiene	87-68-3	0.01
alpha-Hexachlorocyclohexane	319-84-6	0.0001
beta-Hexachlorocyclohexane	319-85-7	0.00047
gamma-Hexachlorocyclohexane (Lindane)	58-89-9	0.0002
Hexachlorocyclopentadiene	77-47-4	0.05
Hexachloroethane	67-72-1	0.06
Indeno(1,2,3-c,d)pyrene	193-39-5	0.001
Isophorone	78-59-1	0.9
Lead	7439-92-1	0.015
Mercury	7439-97-6	0.002
Methoxychlor	72-43-5	0.04
Methyl bromide	74-83-9	0.05

TABLE C. GROUNDWATER CLEANUP LEVELS
(Carcinogenics in Bold Type)

Hazardous Substance	CAS Registry Number	Groundwater Cleanup Level (mg/L)
Methylene chloride	75-09-2	0.005
2-Methylphenol (o-cresol)	95-48-7	1.8
Naphthalene	91-20-3	0.7 [1.46]
Nickel	7440-02-0	0.1
Nitrobenzene	98-95-3	0.018
n-Nitrosodiphenylamine	86-30-6	0.17
n-Nitrosodi-n-propylamine	621-64-7	0.0001
Pentachlorophenol	87-86-5	0.001
Phenol	108-95-2	22.0
Polychlorinated biphenyls (PCBs)	133-63-63	0.0005
Pyrene	129-00-0	1.1
Selenium	7782-49-2	0.05
Silver	7440-22-4	0.18
Styrene	100-42-5	0.1
1,1,2,2-Tetrachloroethane	79-34-5	0.004
Tetrachloroethylene	127-18-4	0.005
Thallium	7440280	0.002
Toluene	108-88-3	1.0
Toxaphene	8001-35-2	0.003
1,2,4-Trichlorobenzene	120-82-1	0.07
1,1,1-Trichloroethane	71-55-6	0.2
1,1,2-Trichloroethane	79-00-5	0.005
Trichloroethylene	79-01-6	0.005
2,4,5-Trichlorophenol	95-95-4	3.65
2,4,6-Trichlorophenol	88-06-2	0.077
Vanadium	7440-06-22	0.26
Vinyl acetate	108-05-4	36.5
Vinyl chloride (Chloroethene)	75-01-4	0.002
Xylenes (total)	1330-20-7	10.0
Zinc	7440-66-6	11.0
Petroleum Hydrocarbons		
GRO - C ₆ - C ₁₀ (AK 101)		1.3*
DRO - C ₁₀ - C ₂₅ (AK 102)		1.5
RRO - C ₂₅ - C ₃₆		1.1
C ₆ - C ₁₀ - Aliphatics		1.3*
C ₆ - C ₁₀ - Aromatics		7.3
C ₁₀ - C ₂₅ - Aliphatics		0.1*
C ₁₀ - C ₂₅ - Aromatics		1.5
C ₂₅ - C ₃₆ - Aliphatics		N/A (insoluble)
C ₂₅ - C ₃₆ - Aromatics		1.1

*Standards based on estimated solubility

(Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 46.03.020	AS 46.03.745	AS 46.04.070
	AS 46.03.050	AS 46.03.755	AS 46.09.010
	AS 46.03.710	AS 46.04.020	AS 46.09.020
	AS 46.03.740		

18 AAC 75.355(b) and (d) are amended to read:

(b) A responsible person and the owner or operator of an offsite or portable treatment facility under 18 AAC 75.365 shall ensure that the collection, interpretation, and reporting of data, and the required sampling and analysis is conducted or supervised by a qualified, impartial third party. The department will waive the requirement for use of an impartial third party if a responsible person demonstrates that work performed will be conducted or supervised by a qualified and objective person, and if the department determines that a waiver is protective of human health, safety, and welfare, and of the environment, **and** [OR] that strict compliance with the impartial third party requirement is not practicable. To request a waiver under this subsection, in addition to meeting the requirements of 18 AAC 75.390, a responsible person shall submit

* * * * * [Publisher: rest of (b) is unchanged]

(d) Among the analytical methods set out in EPA's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846), as adopted by reference in (c) of this section, if there is more than one analytical method for a hazardous substance, a responsible person may select any of those methods with a practical quantitation limit less than the applicable cleanup level. If only one analytical method has a practical quantitation limit less than the applicable cleanup level, that method must be used. Analysis for petroleum contamination must follow the **applicable** Alaska methods for petroleum hydrocarbons referred to in Table 1 **of Chapter 2** of

the *Underground Storage Tanks Procedures Manual*, dated **November 7, 2002.** [DECEMBER 1, 1999, AND] **Table 1 of Chapter 2 and Appendices D and E of the Underground Storage Tanks Procedures Manual, dated November 7, 2002 are** adopted by reference.

(Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority:	AS 44.46.025	AS 46.03.710	AS 46.04.020
	AS 46.03.020	AS 46.03.740	AS 46.04.070
	AS 46.03.050	AS 46.03.745	AS 46.09.020

18 AAC 75.365 is repealed and readopted to read:

18 AAC 75.365. Offsite or portable treatment facilities. (a) A person who owns or operates an offsite or portable treatment facility shall

(1) obtain approval of an operations plan before that person accepts or treats contaminated soil; the department will approve the plan if the department determines that the operations proposed in the plan are protective of human health, safety, and welfare, and of the environment; a plan submitted under this paragraph must include

(A) a facility diagram that shows the location of

- (i) each soil treatment, storage, and transportation area;
- (ii) major roads within or bordering the site or facility; and
- (iii) monitoring wells, surface water, water supply wells, facility

boundaries, and public or private buildings within 500 feet of the facility boundary;

(B) a detailed process description, including a discussion of

- (i) air, water, and solid waste process streams;
- (ii) startup and shutdown procedures;
- (iii) maximum process flow rate;

(iv) air pollution control equipment;

(v) water treatment systems;

(vi) the projected maximum time necessary for the treatment method to achieve soil cleanup levels for contaminated soil; and

(vii) a detailed description of any additive to be used;

(C) a post-treatment sampling and analysis plan prepared by a qualified person in accordance with 18 AAC 75.355(b) to verify that the applicable cleanup levels have been met;

(D) provisions for complete containment of the contaminated soil before, during, and after treatment until the contaminated soil meets the applicable cleanup levels; alternatively, if the treatment process, such as landfarming or landspreading, will not contain the contaminated soil, the person who owns or operates the offsite or portable treatment facility must demonstrate that there will be no uncontrolled leachate from the treatment area;

(E) for an offsite treatment facility classified as a Category C or Category D facility, as described in the department's *Soil Treatment Facility Guidance*, dated November 7, 2002, engineering plans and engineering record drawings for contaminated soil and water containment structures; the *Soil Treatment Facility Guidance*, dated November 7, 2002, is adopted by reference; and

(F) site monitoring procedures that will measure for secondary contamination at the treatment facility;

(2) if the facility is a Category C or Category D facility, as described in the *Soil Treatment Facility Guidance*, submit the following to the department before the owner or operator accepts or treats contaminated soil:

(A) proof of a performance bond or other approved means of fiscal responsibility that will provide the department with a source of funds to clean up contaminated soils that have been received for treatment if the facility operator fails to treat the contaminated soils in accordance with this chapter; a performance bond must be executed by an insurance company licensed in the state and include a bond amount that will cover cleanup of the contaminated soils at the treatment facility; the bond shall be based on

(i) the quantity of contaminated soil allowed at the facility specified in the facility's approved operation plan; and

(ii) the cost per ton for treating contaminated soil at that facility location; and

(B) proof of pollution liability insurance that will provide the department with a source of funds to clean up secondary contamination at the facility property that is caused by the soil treatment facility during soil treatment operations;

(3) perform confirmation sampling of treated soil in accordance with a sampling and analysis plan approved under this subsection to verify that applicable cleanup levels have been met;

(4) submit to the department an assessment of background contamination at the facility before initial startup of the treatment facility; and

(5) submit to the department within 90 days after terminating operation of the treatment facility, a closure assessment demonstrating that secondary contamination did not occur at the facility; if secondary contamination did occur at the facility, the owner or operator of the portable treatment facility shall perform a cleanup of the contamination by in-situ or ex-situ treatment within two years after terminating operation.

(b) If the owner or operator of an offsite or portable treatment facility fails to process soils to the department's satisfaction in accordance with the operations plan approved under (a)(1) of this section, the department will withdraw approval under (a)(1) of this section, and that owner or operator may not process or receive contaminated soil.

(c) For purposes of this section

(1) "engineering plans" means a set of plans approved and sealed by a registered engineer;

(2) "engineering record drawings" means the approved original plans prepared for construction and department approval under (a)(1) of this section, revised to reflect how the containment structure or system was constructed or installed, and sealed by a registered engineer;

(3) "facility" has the meaning given in AS 46.03.900; "facility" includes the land, structures, and equipment associated with treatment of contaminated soil;

(4) "offsite or portable treatment facility" has the meaning given in the *Soil Treatment Facility Guidance*, adopted by reference in (a)(1) of this section;

(5) "owner or operator" has the meaning given to "owner" and "operator" in AS 46.03.826;

(6) "performance bond" means a written agreement between the owner or operator and the department guaranteeing performance of the obligations covered by the agreement;

(7) "registered engineer" means a professional engineer registered to practice in the state under AS 08.48. (Eff. 1/22/99, Register 149; am 8/27/2000, Register 155; am ___/___/2003, Register ___)

Authority: AS 46.03.020 AS 46.03.740 AS 46.04.070

AS 46.03.050
AS 46.03.710

AS 46.03.745
AS 46.04.020

AS 46.09.020

Editor's note: The department's *Soil Treatment Facility Guidance*, adopted by reference in 18 AAC 75.365(a)(1), may be viewed at or requested from the department's offices in Anchorage, Fairbanks, Juneau, and Soldotna.

18 AAC 75.385 is amended to read:

18 AAC 75.385. Appeals. A person aggrieved by a final department decision under the site cleanup rules may request an adjudicatory hearing under 18 AAC 15.195 - 18 AAC 15.340.

A request for an adjudicatory hearing must be made within 30 days after the date of the decision being appealed. (Eff. 1/22/99, Register 149; am 7/11/2003, Register 163; am ___/___/2003, Register ___)

Authority: AS 46.03.020 AS 46.35.090(e)

18 AAC 75.610(a)(1)(A) is amended to read:

(A) surface and subsurface water supplies **that are currently being used or may reasonably be expected to be used sometime in the future as a drinking water source based on**

(i) water quality characteristics;

(ii) technical feasibility of utilizing the water source; and

(iii) population growth trends in the immediate area [FOR

WHICH THE COMMISSIONER OF NATURAL RESOURCES HAS ISSUED A WATER USE PERMIT UNDER AS 46.15.040 - 46.15.185, OR WHICH ARE IN FACT BEING USED FOR A PURPOSE THAT WOULD QUALIFY FOR A WATER USE PERMIT];

(Eff. 5/14/92, Register 122; am ___/___/2003, Register ___)

Authority: AS 46.03.020 AS 46.03.758

18 AAC 75.670 is amended to read:

18 AAC 75.670. Schedule of civil penalties. The schedule of civil penalties for which a person may be held liable under AS 46.03.758(e) is established as follows:

(1) The base civil penalty for a discharge into a receiving environment is as follows:

Receiving Environment	Freshwater	Marine	Public Land
Critical environments	\$10.00	\$2.50	\$1.00
Very sensitive environments	N/A	N/A	<u>\$0.95</u> [\$0.75]
Sensitive environments	<u>\$9.00</u> [\$ 5.00]	<u>\$2.25</u> [\$2.00]	<u>\$0.90</u> [\$0.50]
Environments without significant resources	\$ 1.00	\$1.00	<u>\$0.70</u> [\$0.25]

(2) Toxicity, degradability, and dispersibility factors are as follows:

	Factor
(A) toxicity [*]	
(i) highly toxic	1.0
(ii) moderately toxic	0.75
(iii) less toxic	0.50
(iv) relatively nontoxic	0.25
(B) degradability	
(i) low degradability	1.0
(ii) moderate degradability	0.50

(iii) high degradability 0.25

(C) **dispersibility**

(i) high dispersibility 0.15

(ii) moderate dispersibility 0.50

(iii) low dispersibility 1.0

[* TO DETERMINE THE TOXICITY FACTOR FOR A PARTICULAR OIL, THE FACTOR FROM THE TABLE IS MULTIPLIED BY A FRACTION WHOSE NUMERATOR IS THE PERCENT CONCENTRATION OF AROMATICS IN THE OIL AND WHOSE DENOMINATOR IS 45. IN NO CASE MAY THE TOXICITY FACTOR EXCEED 1.0.]

(3) The net civil penalty that will be assessed per gallon of oil [PETROLEUM OR PETROLEUM PRODUCT OR BYPRODUCT] discharged is calculated by multiplying the base penalty established in (1) of this section by the arithmetic mean of the factors established in (2) of this section. If a portion of the oil [PETROLEUM OR PETROLEUM PRODUCT OR BYPRODUCT] enters more than one receiving environment, the civil penalty will be based upon the most sensitive receiving environment which that portion enters. (Eff. 5/14/92, Register 122; am __/__/2003, Register __)

Authority: AS 46.03.020 AS 46.03.758

18 AAC 75.990(86)(C) is amended to read:

(C) the owner or person exercising a possessory interest in the facility or operation at the time of the discharge or release, unless the possessory interest is being exercised solely for the purpose of providing a place of residence for the person; (Eff. 5/14/92, Register 122; am 9/25/93, Register 127; am 4/4/97, Register 142; am 4/11/97, Register 142; am 1/22/99, Register 149; am 8/27/2000, Register 155; am 10/28/2000, Register

156; am __/__/2003, Register __)

Authority:	AS 46.03.020	AS 46.03.755	AS 46.04.055
	AS 46.03.050	AS 46.03.822	AS 46.04.070
	AS 46.03.710	AS 46.04.020	AS 46.08.140
	AS 46.03.740	AS 46.04.030	AS 46.09.010
	AS 46.03.745	AS 46.04.035	AS 46.09.020